

Transition to organic agriculture

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Reasons for transition to organic farming

- **Economic incentives**
 - Increase cost for inputs
 - Premium price for organic products
- **Subsidies for transition**
- **Difficulties to adopt intensive input agriculture due to:**
 - Small acreage
 - Sloppy, stony, marginal land
 - Lack of capital
 - Restrictions due to lack of irrigation water, etc.

Reasons for transition to organic farming

- Farmers with innovative ideas
- Farmers that realised problems related to conventional agriculture like:
 - Health problems
 - Environmental problems
- Farmers that see organic farming as an opportunity to secure markets for their products with a premium price

Conversion period for organic farming

- The time period between the start of applying organic techniques and obtaining the certificate stating that the product is fully organic.
- The period is determined in regulations and takes 2-3 years in plant production.
 - The final length of the conversion period is determined by the inspection body.

Goals during the conversion period

- Sustainable change
- Increase or maintenance of yield,
- Improvement or maintenance of the socio-economic balance of the farm
 - Reduction of production costs,
- Growth of products demanded by the market
- Reduced amount of off-farm and non-renewable resources
- Increased soil fertility
- Reduction of negative environmental impacts
- Development of on-farm tools for implemented organic farming

Risks in conversion

■ Risks in conversion:

- Technical
- Economic
- Social

■ Minimising risks:

- Evaluation of the farm technical, economic and social conditions
- Short and long term planning

Factors effected the conversion period

- **Initial situation**
 - crop pattern, intensity etc.
- **Natural environment**
 - neighbouring farms, green margins, topography, soil properties, irrigation possibilities etc.
- **Social acceptance of the decision**
 - local assistance and acceptance
- **Information and technology availability and flow**
- **Economic viability**
 - certification cost, access to markets, existence of local markets, contracted farming, subsidy programs, availability of labour, etc.

Major technical factors affecting success during the transition period

- **Breaking of monoculture and design of appropriate crop rotation**
- **Establishment of an agro ecological balance for**
 - **Managing pests and diseases**
 - **Correcting imbalance of soil nutrients**
 - e.g. excess uptake or imbalance of nutrients etc.
- **Availability of low cost organic manure**
 - **Presence of animals**
- **Availability of required authorised inputs especially for pest control**
- **Availability of technical solutions for unsolved production problems**

Expected problems during conversion from intensive conventional agriculture

- Lower yields
- High requirements for intensive flow of technical information
- Difficulties in planning a stepwise, long and progressive transition period

Expected problems during conversion from extensive conventional agriculture

- Difficulties to increase the marketing value of the product
- Difficulties to fulfil organisational and administrative requirements
- Logistics of the inputs and products
- Difficulties in corresponding in the administrative requirements and cost of the certification

Major mistakes during conversion

- **Just input substitution**
- **Unplanned, immediate and large scale conversion**
- **Reduced farm efficiency**
 - due to excessive farm diversification
- **Just abandoned it and let it to nature**
- **Lack of appropriate information flow**
 - use of unsuitable for local conditions information
- **Misconception that organic farming automatically gives high returns**
- **Underestimation of the market requirements**

Prerequisites for successful conversion

- Analysis of the existing situation and problems
- Availability of the required technical information
- Existence of the required capital for securing additional investment cost
- Consider market demands and requirements
- Existence of appropriate organic inputs
- Optimization of the organic production methods in the local conditions
- Selection of most adapted species, varieties etc. to the local agroclimatic conditions
- Securing good farm management
- A holistic approach that combines the best adapted elements for the site

Prerequisites for successful conversion

- Success in transition and during the initial stages of organic farming depends on
 - the availability of information
 - the acceptance, evaluation of technical aspects
 - planning that is based on careful and thorough evaluation

Setting up a farm strategy for conversion

- Assessment of climatic conditions
- Land analysis and evaluation
- Assessment of existing equipments and infrastructure
- Production conditions
 - Plant production
 - Animal production
- Labour availability
- Market conditions

Assessment of climatic conditions

- Day length
- Light intensity
- Occurrence of frosts
- Temperature
 - soil and air /min, max and average)
- Precipitation
 - amount, time and distribution

Land analysis and evaluation

- Soil type and depth
- Soil structure
- Soil nutrient levels and availability
- Soil pH
- Water holding capacity
- Possibilities for soil cultivation
 - Time
 - equipment
- Drainage
- History / previous use and crops
- Occurrence of pests and diseases and especially soil borne
- Weed flora

Assessment of existing equipments and infrastructure

- Machinery
- Buildings
- Facilities for processing like
 - Cooling systems
 - Packing equipment etc.

Plant production conditions

- **Applied cultural practices**
- **Weeds, pests and diseases**
 - species
 - density
- **Water use efficiency**
- **Soil nutrient levels**
- **Rotation / fallow period**
- **Species cultivated and seed rates**
- **Dry matter accumulation**
- **Yield**

Animal production conditions

- Capacity and conditions of the stables etc.
- Species raised
 - Numbers
 - Age
 - productivity
- Availability of food, pasture land

Labour availability

- **Family labour**
- **Permanent and seasonal labour**
 - **cost**
 - **level of training**
 - **amount**

Market conditions

- Possibilities for contracted farming
- Distance from the markets
- Product distribution opportunities
- Availability of processing plants or ability for on farm packaging and processing
- Existence of distribution channels

When a farm can be converted to organic farming

- Any existing farm can start organic production through a period of conversion,
- The conversion period is determined by site-specific factors such as
 - the history of land,
 - the type of crops and livestock to be produced
- It is decided by the inspection and certification body according to the existing regulations.